

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-38. (canceled)

39. (currently amended) An expression cassette encoding a soluble, fused major histocompatibility complex (MHC) class II heterodimer, which forms a peptide binding groove that associates with an antigenic peptide, the expression cassette comprising the following elements operably linked in order:

(a) a transcription promoter;

(b) (i) a first nucleic acid segment encoding a first polypeptide segment comprising an $\beta 1\beta 2$ domain of an MHC class II chain molecule;

(ii) a second nucleic acid segment encoding a second polypeptide segment comprising an $\alpha 1\alpha 2$ domain of an MHC class II molecule; and

(iii) a first linker nucleic acid segment encoding a flexible linker and connecting in-frame the first and second DNA segments; wherein said flexible linker comprises the amino acid sequence GGGGSGGGGSGGGGS (SEQ ID NO: 36) and said ~~$\beta 1$~~ $\beta 1\beta 2$ domain and said ~~$\alpha 1$~~ $\alpha 1\alpha 2$ domain form the peptide binding groove of the MHC class II heterodimer;

wherein linkage of the first nucleic acid segment to the second nucleic acid segment results in a fused first, linker and second nucleic acid polysegment that is capable of expressing a soluble fused, MHC class II heterodimer;

(iv) a third nucleic acid segment encoding an antigenic peptide capable of associating with the peptide binding groove of the MHC class II molecule; and

(v) a second linker nucleic acid segment encoding a flexible linker of 5 to 25 amino acids and connecting in-frame the third nucleic acid segment to the fused first nucleic acid -first linker-second nucleic acid polysegment;

wherein linkage of the third nucleic acid segment to the fused first nucleic acid-first linker-second nucleic acid polysegment results in expression of a soluble fused MHC class II heterodimer:peptide complex; and

c) a transcription terminator.

40. (canceled)

41. (currently amended) The expression cassette of claim 39, wherein the MHC class II ~~$\beta 1$~~ $\beta 1\beta 2$ domain is from a human DR1 β *1501 β domain.

42. (currently amended) The expression cassette of claim 39, wherein the MHC class II ~~$\alpha 1$~~ $\alpha 1\alpha 2$ domain is from a human DRA*0101 α domain.

43. (canceled).

44. (previously presented) The expression cassette of claim 39, wherein the second linker segment encodes a second peptide linker having the sequence GGSGG (SEQ ID NO:30) or GGSGGS (SEQ ID NO:31).

45. (previously presented) The expression cassette of claim 39, wherein the third nucleic acid segment encodes an antigenic peptide capable of stimulating a CD4⁺ helper T cell-mediated immune response.

46. (previously presented) The expression cassette of claim 39, further comprising an additional nucleic acid segment encoding a signal sequence.

47-49. (canceled)

50. (previously presented) The expression cassette of claim 39, wherein the MHC class II molecule is selected from at least one of a human DR1 β *1501 β chain and a human DRA*0101 α chain.

51. (previously presented) The expression cassette of claim 39, wherein the antigenic peptide is from glutamic acid decarboxylase, type II collagen, thyroglobulin, acetylcholine receptor, myelin basic protein, or proteolipid protein.

52. (previously presented) The expression cassette of claim 51, wherein the antigenic peptide is from acetylcholine receptor.

53. (previously presented) The expression cassette of claim 51, wherein the antigenic peptide is selected from the group consisting of SEQ ID NO:59, SEQ ID NO:61, SEQ ID NO:40, SEQ ID NO:39, and SEQ ID NO:33.

54. (previously presented) The expression cassette of claim 51, wherein the soluble fused MHC class II heterodimer:peptide complex induces anergy in T cells.